

Christina Deards
65 Nodes Drive
Stevenage
Herts
SG28AH

6 November 2025

Our ref: ECO161

Dear Christina Deards

Re: Land at Slip Lane, Knebworth, SG3 6QJ – Biodiversity Net Gain

Optimis Consulting Ltd (Optimis) was commissioned by AJM Planning (on behalf of Christina Deards) to undertake a Biodiversity Metric for Land at Slip Lane, Knebworth to inform proposals for the erection of a new agricultural barn and associated access drive to an existing gate. An assessment of the proposed developments' merits for biodiversity has been undertaken to demonstrate whether the scheme provides a Biodiversity Net Gain (BNG).

The value of the pre-development and post-development habitats have been calculated using the **Statutory Biodiversity Metric** and presented within the **Baseline Habitats Plan** and **Proposed Habitats Plans** provided. The assessment has been carried out in accordance with the Biodiversity Metric User Guide, Technical Supplement and the Biodiversity Net Gain: Good Practice Principles for Development guidance.

Baseline Habitats

The site comprises a large, modified grassland field dominated by false oatgrass *Arrhenatherum elatius*. The grassland is in poor condition given that it does not comprise at least six vascular plant species per m². Vascular plant species present include meadow buttercup *Ranunculus acris*, spear thistle *Cirsium vulgare*, greater plantain *Plantago major*, and broad-leaved dock *Rumex obtusifolius*. The grassland edges have been left unmanaged and comprise vascular plant species such as thyme-leaved speedwell *Veronica serpyllifolia*, scarlet pimpernel *Lysimachia arvensis*, and common chickweed *Stellaria media*. The northern half of the field is bordered by a species-rich native hedgerow that is off-site. The hedgerow comprises species such as hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus*, blackthorn *Prunus spinosa*, and pedunculate oak *Quercus robur*. Adjacent to the Site to the south-east there is a dried-up pond and two very large individual oak trees.

A 'Baseline Habitats Plan' and series of photographs are provided showing the location and extent of each habitat (**Appendix A**). The modified grassland is of low distinctiveness and limited ecological importance given it is a common and replaceable habitat, however, the off-site species-rich native hedgerow is of medium distinctiveness.

Proposed Development and Habitats

The proposed development includes the erection of a new agricultural barn and associated access drive

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to an existing gate. The proposed agricultural barn will be built where current modified grassland exists. To compensate for the lost modified grassland, a strip of modified grassland alongside the proposed access track will be enhanced by ensuring that it comprises 6-8 vascular plant species per m². Therefore, this modified grassland area can be enhanced from 'poor' to 'good' condition. Additionally, 5 trees in 'moderate' condition will be planted within this enhanced grassland area.

A 'Proposed Habitats Plan' is provided showing the location and extent of the proposed habitats (**Appendix A**).

Biodiversity Net Gain

In summary, the baseline habitats on Site total 0.23 Habitat Units and proposed habitats on Site total 0.29 Habitat Units. This **biodiversity unit change totals 0.06 Habitat Units, which equates to a 26.36% net gain in Habitat Units because of the Proposed Development.**

There are no high distinctiveness habitats, no irreplaceable or priority habitats present on Site.

The Biodiversity Gain Hierarchy has been applied, and an iterative design process was used to achieve BNG on Site. **The proposed development therefore meets the government's mandatory 10% Biodiversity Net Gain requirements as per the Environment Act 2021.**

Please let me know if you have any questions or require any clarification on our approach to maximise biodiversity within this scheme.

Kind regards,

Morgan Taylor BSc
Assistant Ecologist

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Appendix A – Baseline Habitats Plan, Proposed Habitats Plan and Site Photos



Photo 1. The existing access to the field.



Photo 2. The area of existing modified grassland where the proposed access track will be.



Photo 3. The existing area of modified grassland where the proposed barn will be.



Photo 4. The existing area of modified grassland where the proposed barn will be., and the surrounding landscape.



Photo 5. An example of the character of the existing modified grassland.



Photo 6. The hedgerow which runs adjacent to the north and east of the Site.

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Appendix B – Biodiversity Metric Headline Results (full results in excel spreadsheet format)

Land at Slip Lane, Knebworth, SG3 6QJ

Headline Results

Scroll down for final results ▲

Return to results menu

On-site baseline	Area habitat units	0.23	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.29	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	Area habitat units	0.06	26.36%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Off-site baseline	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Area habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	0.06	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	0.06
	Hedgerow units	0.00
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	26.36%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Area habitat units	10.00%	0.23	0.25	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

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